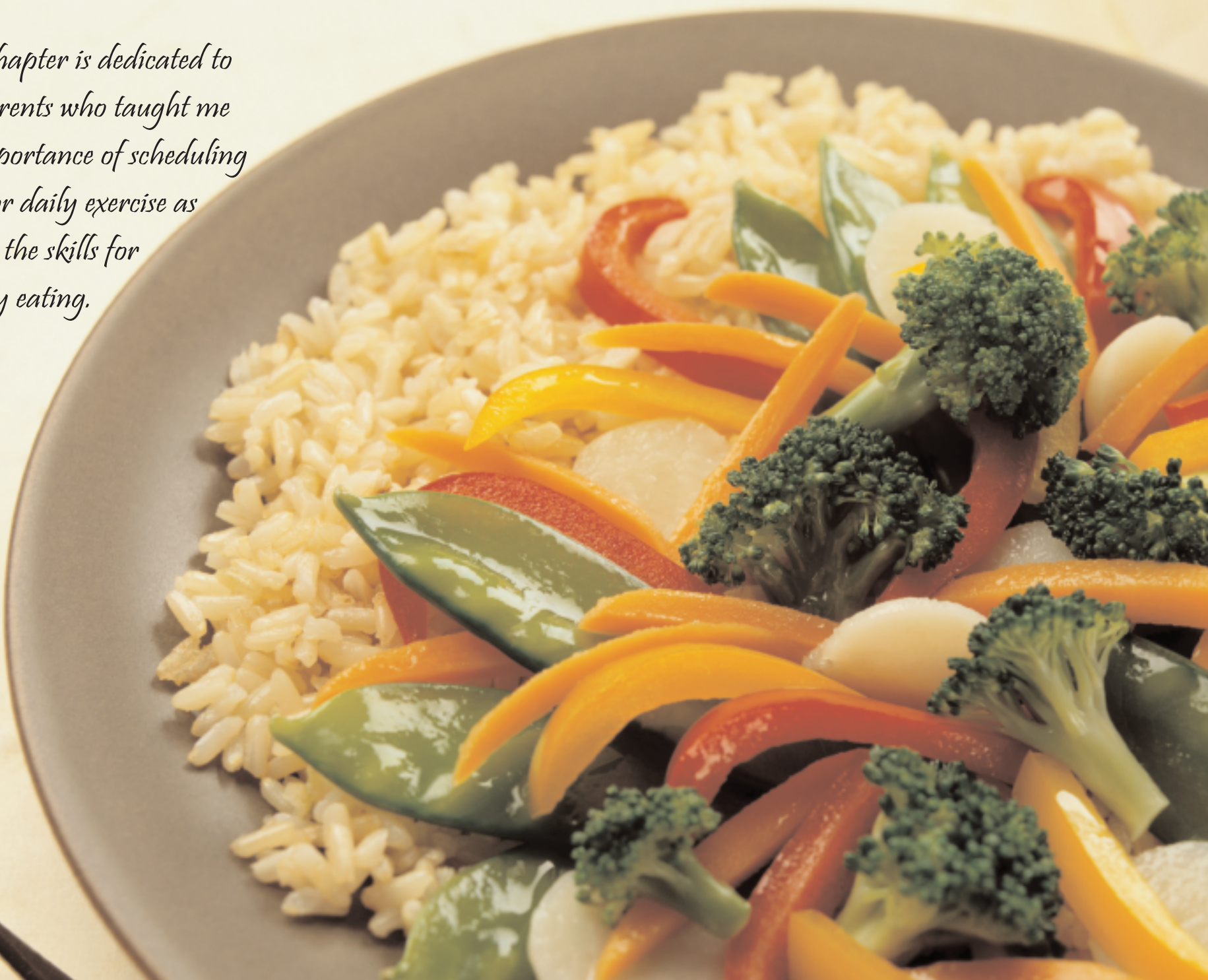


This chapter is dedicated to my parents who taught me the importance of scheduling time for daily exercise as well as the skills for healthy eating.



If you're among those who feel as if your lifestyle has become more hectic with each passing year, you've undoubtedly felt the impact of that time crunch and wondered how to dedicate time to your health. People frequently express lack of time as an obstacle to practicing a healthy lifestyle. If this sounds like you, there's no time like the present to schedule time, starting now for your current and future health. It has been said, "failing to plan is planning to fail." In this case, it has significant consequences since it may alter your future risk of cancer.

For the great majority of New Jerseyans who don't smoke cigarettes, nutrition and physical activity behaviors are the most important lifestyle factors that can be controlled to minimize the risk of cancer. According to the World Cancer Research Fund and the American Institute for Cancer Research, these factors, along with maintenance of appropriate bodyweight, may reduce the risk of cancer by 30 to 40%. Worldwide, approximately three million cases of cancer could be prevented each year by eating healthier foods and engaging in a more active lifestyle.

FAMILY HISTORY

People who consume healthy foods and maintain active lifestyles have experienced

the impact of those choices on their levels of energy and feelings of wellness on a daily basis. That feeling is worth a thousand words. If you're among those who still plan to make some adjustments toward a healthier lifestyle and need motivation for the long term, the information in this chapter may help you to see your vision become a reality. If you are a cancer survivor, you may be very eager to make some permanent changes.

Each person has a family history that undoubtedly impacts future health concerns. Although a predisposition to certain illnesses is very real, it seems logical to use that information in a positive manner in order to minimize personal risk. Even without a strong family history of cancer, the facts of this disease are sobering and emphasize the reality that everyone is at risk.

CANCER FACTS

In the United States, cancer is the second leading cause of death, accounting for one out of every four deaths. Each year, 1.3 million new cases are diagnosed. According to the American Institute for Cancer Research, cancer costs the United States an estimated \$107 billion annually from healthcare costs, mortality costs and lost productivity.

New Jersey Facts

In New Jersey, cancer rates have been

Chapter 18

Cancer Prevention and Your Lifestyle

Mary Ann Ellsworth, M.S., R.D.
Coordinator
New Jersey 5 A Day Program
New Jersey Department of Health
and Senior Services
Trenton, New Jersey





The major links between exercise and cancer prevention include the following:

- *modification of the endogenous sex and metabolic hormonal levels and growth factors*
- *decreased body fat*
- *enhanced immune function*

representative of the Northeast region of the United States which tends to have a higher cancer incidence than the nation as a whole. Among the 50 states, New Jersey ranks as the 17th highest in cancer death rates.

When telling New Jersey's story, the cultural diversity of our population must be included. In New Jersey and nationally, African-American men have a higher rate of new cancers and deaths from cancer than any other racial or ethnic group. African-American men are about 1.5 times more likely to die from cancer as Caucasian men. Of interest is that this segment of the population also has the lowest consumption rates of fruits and vegetables of any other group.

Overweight and obesity are known risk factors for certain types of cancer. In New Jersey, it's estimated that about 70% of African Americans and 55% of Caucasians are at risk for health problems related to being overweight. Nationally, overweight and obesity affect more than 60% of American adults and is the second-leading cause of preventable death.

Age is an additional issue for both men and women. As people age, cancer occurs with greater frequency, with the highest incidence in those who are 80-84 years old. In New Jersey, 64% of men and 58% of women who are newly diagnosed with cancer

are aged 65 or older. As the population ages and continues to become a larger segment of the total population, additional attention is needed for the prevention of cancer over a lifetime.

THE ROLE OF PHYSICAL ACTIVITY

The role that an active lifestyle plays in the prevention of cancer isn't fully understood. While regular exercise isn't a guarantee against all forms of cancer, it appears to be most successful in protecting against cancers of the colon, breast and prostate. The many general benefits of exercise have been described in other chapters of this book. The major links between exercise and cancer prevention include the following:

- **modification of the endogenous sex and metabolic hormonal levels and growth factors**
- **decreased body fat**
- **enhanced immune function**

The importance of physical activity in maintaining a healthy bodyweight cannot be overestimated. Together with making healthy food choices, participating in an exercise program is the key to weight management. Additionally, exercise enhances psychological well-being. And greater physical functioning improves the overall quality of life.

Unfortunately, about 29% of the adult residents in New Jersey reported no leisure time physical activity and only 14% engaged in regular and vigorous exercise in the year 2000. As outlined in Healthy New Jersey 2010, the objective is to increase that to 42.5% by the year 2010. If that goal is achieved, it's thought that the incidence of cancer can be decreased and the survival and quality of life among cancer patients would be increased. It appears as if reaching that goal will be a challenge, especially for the less affluent, less educated, obese and non-white populations. (For additional information and suggestions for increasing physical activity to decrease the risk of cancer, refer to Physical Activity and Health: A Report of the Surgeon General.)

THE ROLE OF FOOD CHOICES

According to the Centers for Disease Control and Prevention, dietary factors play a major role in the development of many cancers, especially those of the digestive and reproductive organs. The good news is that the dietary recommendations that have been made for overall health also apply to cancer prevention. This means that while you're reducing your risk for health problems such as heart disease, obesity and diabetes, you're also reducing your risk for cancer. The goal is to consume a low-fat diet that is high in

fruits, vegetables and whole grains (for dietary fiber). In contrast, diet-related habits that appear to increase the risk of cancer include being obese, drinking excessive amounts of alcohol and consuming certain fatty acids (trans and saturated fats).

Research suggests that positive messages about what should be eaten are more effective than restrictive messages about what shouldn't be eaten. There is no better example of that than the advice to eat a variety of colorful fruits and vegetables.

For the first time, the 2005 Dietary Guidelines for Americans recommends that people should consume more daily servings of fruits and vegetables than any other food group. Proportionately, this amounts to roughly half of your plate. The recommended number of servings of fruits and vegetables has increased for all population subgroups. Your intake depends on your caloric needs, which are based on your age and activity level. For instance, the recommended intake of fruits and vegetables has increased to nine servings per day for a person who needs about 2,000 calories per day.

Researchers believe that an increase in the amount of fruits and vegetables has the potential to decrease the global risk of cancer. It's thought that consuming these foods may help to prevent cancer.



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Eat A Rainbow!



Fruits and Vegetables: A Closer Look

Why are fruits and vegetables so good for you? By nature, these foods are high in fiber and water. This makes them low in calories and a great replacement for some high calorie foods. Decreasing the number of calories that you consume without reducing the volume of food that you eat can be accomplished by substituting nutrient-dense foods for less nutritious ones. This way, you can reduce your caloric intake without feeling hungry or deprived. Fruits and vegetables are tasty substitutions and important additions for managing your weight and improving your health. You should use caution in preparing food and avoid high fat seasonings. Also use caution before adopting a low carbohydrate diet or other diet that negatively impacts your intake of fruits and vegetables.

Here's some of the encouraging information that has been reported by research:

- **American women with the highest intake of fruits and vegetables have the lowest risk of lung cancer. The greatest protection appears to come from cruciferous vegetables, along with foods that are high in carotenoids. A few examples of cruciferous vegetables are broccoli, cauliflower, brussel sprouts and cabbage. Carotenoids are found in the**
- yellow/orange, red and green fruit and vegetable color groups. Examples are carrots, peaches and oranges, tomatoes and watermelon. The protective benefits are greatest for heavy smokers.**
- **Breast cancer accounts for 31% of all cancer diagnoses and 15% of cancer deaths. Increasing intake to two cups of cruciferous vegetables a day appears to have a protective effect on the risk of breast cancer.**
- **Colon and rectal cancer accounts for 10% of new cancer cases and 10% of cancer deaths. The risk appears to be the highest in those who consume less than two servings of fruits and vegetables per day.**
- **Consumption of three or more servings of vegetables per day reduces the risk of non-Hodgkin's lymphoma by 38%, with the greatest benefit being from cruciferous vegetables.**
- **Individuals who consume four to six servings of fruits and vegetables per day have a 40 to 60% lower risk of esophageal cancer compared to those who consume one to two servings of fruits and vegetables per day.**

(For more information on the research that's related to specific cancers, refer to The Health Benefits of Fruits and Vegetables: A

Scientific Overview for Health Professionals.
The document is available at
www.5aday.org/pdfs/research/health_benefits.pdf.)

Eat a Rainbow

One of the reasons that a plant-based diet is often recommended is due to the compounds in plant pigments, called “phytochemicals”, which may function as antioxidants. Antioxidants protect the body by neutralizing free radicals or unstable oxygen molecules that can damage cells and lead to poor health. One way to develop healthy eating behaviors is to adhere to the 5 A Day suggestion to eat the different colors of a rainbow every day.

If you like positive, simple and clear directions, then all you need to do is choose at least one serving from each of the following colorful fruit and vegetable groups: blue/purple, green, white, yellow/orange and red. So go ahead and eat a rainbow! (To learn more about the phytochemicals in specific fruits and vegetables, go to the web-based Phytochemical Information Center at www.5aday.org/html/phytochem/about.php.)

GETTING STARTED

If you’re considering a change to either your diet or level of activity, you must determine a realistic starting point. For example, try to

increase your consumption of fruits and vegetables by adding one serving of each to your daily intake. As this becomes more comfortable, continue to increase your servings by one more each week until you’re up to the recommended daily intake. Most people include their fruits and vegetables at meals. That means that there’s lots of opportunity to add fruits and vegetables as snacks.

Don’t be discouraged about your current fruit and vegetable intake. Less than 30% of New Jerseyans report a daily intake of at least five servings of fruits and vegetables a day. On a positive note, this means that you’re about halfway there with lots of opportunity to increase your intake. Those who reach their goals for fruit and vegetable intake also tend to have diets that meet the overall guidelines for healthy eating. They generally eat more fruits and vegetables “as is” to simplify the time that’s needed for food preparation. This practical tip should free up time that can be used for daily physical activity.

Find a plan that works for you and your family. And when making changes in your diet and physical activity, remember that small and realistic changes work best and are most likely to become a permanent part of your lifestyle.

The importance of physical activity in maintaining a healthy bodyweight cannot be overestimated. Together with making healthy food choices, participating in an exercise program is the key to weight management. Additionally, exercise enhances psychological well-being. And greater physical functioning improves the overall quality of life.



ACKNOWLEDGEMENT

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